hESCs for Articular Cartilage Regeneration

Grant Award Details

hESCs for Articular Cartilage Regeneration

Grant Type: SEED Grant

Grant Number: RS1-00464

Investigator:

Name:	A. Reddi
Institution:	University of California, Davis
Type:	PI

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Name:	Corey New
Institution:	University of California, Davis
Type:	Co-PI

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Name:	Zongbing You
Institution:	University of California, Davis
Type:	Co-PI

Disease Focus: Bone or Cartilage Disease

Award Value: $301,703

Status: Closed

Grant Application Details

Application Title: hESCs for Articular Cartilage Regeneration

Public Abstract:	Mobility is critical for human social interactions and quality of life. In the aged mobility is progressively impaired due to painful joints. The articular cartilage in the joints is damaged. The long-term goal of our research is the utilization of human embryonic stem cells (hESCs) for cartilage formation and therefore, regeneration of articular cartilage. Stem cells have enormous potential. Their potential can be directed by morphogens governing chondrogenesis. Bone and cartilage morphogenetic proteins induce stem cells to form cartilage cells. This research will contribute directly to the development of therapy for osteoarthritis for the aging Californians.
Statement of Benefit to California:	The State of California is a magnet for people from all over the world who seek opportunities for employment and improving the quality of life. However, it is inevitable that as Californians become older and old, their mobility is decreased due to painful joints due to osteoarthritis. Osteoarthritis is a common painful malady of the aging Californians. The proposed research on harnessing the potential of human embryonic stem cells to differentiate into articular cartilage can contribute novel strategies to regenerate damage articular cartilage.
